

588 12/15/92 This is a # 22

**CONTROLLED DOCUMENT**

EG&G - ROCKY FLATS PLANT  
ENVIRONMENTAL MANAGEMENT

**ROCKY FLATS PLANT  
EMD OPERATING  
PROCEDURES MANUAL**

Manual No.: 5-21000-OPS-GT  
Procedure No.: Table of Contents, Rev 30  
Page: 1 of 3  
Effective Date: 12/14/92  
Organization: Environmental Management

**THIS IS ONE VOLUME OF A SIX VOLUME SET  
WHICH INCLUDES:**

- VOLUME I: FIELD OPERATIONS (FO)
- VOLUME II: GROUNDWATER (GW)
- VOLUME III: GEOTECHNICAL (GT)
- VOLUME IV: SURFACE WATER (SW)
- VOLUME V: ECOLOGY (EE)
- VOLUME VI: AIR (AP)

**TABLE OF CONTENTS  
FOR VOLUME III: GEOTECHNICAL**

<u>Procedure No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
GT.01	Logging Alluvial and Bedrock Material	2	05/12/92
DCN 92.01	Specialized Logging Form	2	11/13/92
GT.02	Drilling and Sampling Using Hollow Stem Auger Techniques	2	05/12/92
DCN 92.01	Superseded by DCN 92.03	2	07/27/92
DCN 92.02	Superseded by DCN 92.03	2	07/27/92
DCN 92.03	Addition of the Drum Characterization	2	07/27/92
DCN 92.04	Prevention of Down Hole Contamination	2	08/26/92
DCN 92.05	Field Modification	2	12/04/92
GT.03	Isolating Bedrock from Alluvium with Grouted Surface Casing	2	05/12/92
DCN 92.03	Expired	2	09/03/92
GT.04	Rotary Drilling and Rock Coring	2	05/12/92

**DOCUMENT CLASSIFICATION REVIEW WAIVER  
PER R.B. HOFFMAN, CLASSIFICATION OFFICE  
JUNE 11, 1991**

**ADMIN RECORD**

A-SW-000507

**ROCKY FLATS PLANT  
EMD OPERATING  
PROCEDURES MANUAL**

Manual No.: 5-21000-OPS-GT  
Procedure No.: Table of Contents, Rev 30  
Page: 2 of 3  
Effective Date: 12/14/92  
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<u>Procedure No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
GT.05	Plugging and Abandonment of Boreholes	2	05/12/92
DCN 92.01	Field Modification	2	12/09/92
GT.06	Monitoring Wells and Piezometer Installation	2	05/12/92
DCN 92.05	Schematic Diagram Land Fill Methane Wells	2	06/04/92
DCN 92.06	Field Modification	2	11/12/92
GT.07	Logging and Sampling of Test Pits and Trenches	2	05/12/92
GT.08	Surface Soil Sampling	2	05/12/92
DCN 92.01	Clarification of Soil Sampling	2	09/03/92
DCN 92.02	Consistency Change	2	10/12/92
GT.09	Soil Gas Sampling and Field Analysis	2	05/12/92
GT.10	Borehole Clearing	2	05/12/92
GT.11	Plugging and Abandonment of Wells	2	05/12/92
GT.15	Geophysical Borehole Logging	2	05/12/92
GT.17	Land Surveying	2	05/12/92
GT.18	Surface Geophysical Surveys	2	05/12/92
DCN 92.01	Surface Magnetic Surveys Procedure	2	09/30/92
DCN 92.02	Modification to Stacking Requirements	2	10/15/92
DCN 92.03	Modification to Method of Taking Readings	2	10/15/92
GT.19	Field Gas Chromatographs	2	05/12/92

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<b><u>Procedure No.</u></b>	<b><u>Title</u></b>	<b><u>Rev. No.</u></b>	<b><u>Effective Date</u></b>
GT.20	Procedures for Soil Interstitial Water Sampling and Sampler Installation	2	05/12/92
GT.21	Cone Penetrometer Testing	1	05/12/92
GT.24	Approval Process for Construction Activities on or Near Individual Hazardous Substance Sites (IHSSs)	0	05/12/92

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**CONTROLLED DOCUMENT ENVIRONMENTAL MANAGEMENT**  
**EG&G - ROCKY FLATS PLANT DOCUMENT CHANGE NOTICE (DCN)**

ENVIRONMENTAL MANAGEMENT

This is a RED Stamp

Procedure Number 5-21000-OPS-GT.2, Rev. 2

Page 1 of 1

Title Drilling and Sampling Using Hollow-Stem Auger Techniques	Date 12/04/92	DCN Number 5-21000-OPS-92.05 <i>egh</i>
Expires <u>12/4/93</u>	Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Scope Limitation <u>Areas outside of IHSSs</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	11 of 14	5.3.4 paragraph 1	Reference DCN 92.03 for section 5.3.4  Add to the end of the paragraph beginning "When obtaining ...: (NOTE: In areas outside of IHSSs, no further characterization sampling will be done than is stipulated in the the Work Plan's Field Sampling Plan.)

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

Per DOE letter of November 30, 1992 (Schassburger to Benadetti:ERD:BMM:13364) granting approval for modifying practices for drumming of cuttings outside of IHSSs.

**DOCUMENT CLASSIFICATION REVIEW WAIVER**  
**PER R.B. HOFFMAN, CLASSIFICATION OFFICE**  
**JUNE 11, 1991**

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>Bruce M. ...</i>	QAPM	X	12/8/92	<i>A L ...</i>	User	X	12/4/92
				<i>D.M. ...</i>	USER	X	12/7/92

Approval of Responsible Manager <i>M. L. ...</i>	Date 12-7-92	Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date? <i>12-7-92</i> <i>upon receipt</i>	Date Posted
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54B, 12/15/92 This is a #22  
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**ENVIRONMENTAL MANAGEMENT  
 DOCUMENT CHANGE NOTICE (DCN)**

Procedure Number 5-21000-OPS-GT.5, Rev. 2

Page 1 of 1

Title Plugging and Abandonment of Boreholes	Date 12-9-92	DCN Number 5-21000-OPS-92.01
Expires <u>12/9/93 mcs</u> Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Scope Limitation <u>none</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	6 of 8	paragraph 1 line 7	Add after the sentence "The tremie pipe will then be removed from the hole.": For borings less than 10 feet deep, where groundwater was not encountered, plugging will consist of mixing grout according to the manufacturer's recommendations either manually or with an mechanical mixer. The grout will then be poured into the boring.

Justification (Reason for Change - Provide Numbers To Reference Corresponding Items Above)

For shallow holes, a tremie pipe is not necessary to ensure complete plugging of the borehole. In addition, small quantities of grout can be readily and thoroughly mixed by hand.

**DOCUMENT CLASSIFICATION REVIEW WAIVER  
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 JUNE 11, 1991**

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>[Signature]</i>	QAPM	X	12/8/92	<i>[Signature]</i>	User	X	12/9/92
<i>[Signature]</i>	EOM	X	12/8/92	<i>[Signature]</i>	User	X	12/9/92
				<i>[Signature]</i>	User	X	12/9/92
Approval of Responsible Manager <i>[Signature]</i>				Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Date 12-8-92				If Yes, By What Date?			
				Date Posted			

# ENVIRONMENTAL MANAGEMENT DOCUMENT CHANGE NOTICE (DCN)

5-13-92/15/92 This is a #22  
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EG&G - ROCKY FLATS PLANT  
ENVIRONMENTAL MANAGEMENT

This is a RED Stamp 2/000 EAB

Procedure Number 5-51000-OPS-GT.6, Rev2

Page 1 of 1

Title <u>MONITORING WELLS AND PIEZOMETER INSTALLATION</u>			Date <u>11/12/92</u>		DCN Number <u>72.06</u> <u>5-21000-OPS-GT.6, Rev2</u>		
Expires <u>11/12/92</u> <u>11/12/93</u> <sup>MCB</sup>			Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Scope Limitation <u>Operable Unit No. 5</u>							
Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)				
1	6	1	Change the second sentence to read:  Therefore, after the augers have been advanced to the bedrock contact, an appropriately-sized drive sampler will be driven 2 to 5 feet into the claystone bedrock to provide a pilot hole, no more than 1 inch greater than the outside diameter (O.D.) of the casing, for a 2-foot deep sediment sump and to classify the bedrock lithology below the contact.				
2	11	2	Add the following to the end of the second paragraph:  Before placing the well assembly into the borehole, any void space between the bottom of the borehole and the bottom of the sediment sump will be backfilled with commercially available bentonite pellets.				
Justification (Reason for Change - Provide Numbers To Reference Corresponding Items Above)							
The boreholes may be advanced to five feet below the bedrock contact to ensure that there is no sandstone within the top five feet of bedrock.							
DOCUMENT CLASSIFICATION REVIEW WAIVER PER R.B. HOFFMAN, CLASSIFICATION OFFICE JUNE 11, 1991							
Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>[Signature]</i>	QAPM	X	12/10/92	<i>[Signature]</i>	User	X	11/13/92
<i>[Signature]</i>	EOM	X	12/8/92	<i>[Signature]</i>	User	X	12/8/92
				<i>[Signature]</i>	User	X	12/9/92
Approval of Responsible Manager		Date		Is Posting Req'd?		If Yes, By What Date?	
<i>[Signature]</i>		11/13/92		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
						Date Posted	